



SAFETY DATA SHEET

ZODIAC 1520 M2 / Z7020 / Z7124 / Z7096

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

Identification of the substance or mixture

Product name : ZODIAC 1520 M2 / Z7020 / Z7124 / Z7096
Code : 30021950+ 30507400 + 30507410
Product type : Liquid.
Use of the substance/mixture : Adhesive.
Supplier : BOSTIK SA
 253 Avenue du Président Wilson
 93211 La Plaine Saint Denis
 FRANCE
Telephone no. : + 33 (0) 1 55 99 90 00
e-mail address of person responsible for this SDS : sds.box-fr@bostik.com
Emergency telephone number ORFILA : + 33 (0) 1 45 42 59 59

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225

Eye Irrit. 2, H319

STOT SE 3, H336

Ingredients of unknown toxicity : Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 18,3%

Ingredients of unknown ecotoxicity : Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 22,8%

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : F; R11
 Xi; R36
 R66, R67

Physical/chemical hazards : Highly flammable.

Human health hazards : Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Highly flammable liquid and vapour.
 Causes serious eye irritation.
 May cause drowsiness or dizziness.




Precautionary statements

General :

Date of issue/Date of revision : 06/11/2012.

Page: 1/9

2. HAZARDS IDENTIFICATION

- Prevention** : Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area.
- Response** : 
- Storage** : 
- Disposal** : 
- Contains** : butanone
- Supplemental label elements** : Repeated exposure may cause skin dryness or cracking.
- Special packaging requirements**
- Containers to be fitted with child-resistant fastenings** : Not applicable.
- Tactile warning of danger** : Not applicable.

2.3 Other hazards

- Other hazards which do not result in classification** : None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

- Substance/preparation** : Mixture
- Nature of material** : Adhesive.

Ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
butanone	REACH #: 01-2119457290-43 EC: 201-159-0 CAS: 78-93-3 Index: 606-002-00-3	> 50	F; R11 Xi; R36 R66, R67	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	[1] [2]
acetone	REACH #: 01-2119471330-49 EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	20 - 50	F; R11 Xi; R36 R66, R67	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	[1] [2]
1-nitropropane	EC: 203-544-9 CAS: 108-03-2 Index: 609-001-00-6	1 - 5	R10 Xn; R20/21/22 See Section 16 for the full text of the R-phrases declared above.	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 See Section 16 for the full text of the H statements declared above.	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

- Inhalation** : Move exposed person to fresh air. Get medical attention if adverse health effects persist or are severe. Maintain an open airway. If unconscious, place in recovery position and seek medical advice. Get medical attention if symptoms appear.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.
- Skin contact** : Wash skin thoroughly with soap and water or use recognised skin cleanser. Wash with soap and water. In the event of any complaints or symptoms, avoid further exposure. Get medical attention if symptoms occur.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Get medical attention. Seek immediate medical attention/advice.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

See Section 11 for more detailed information on health effects and symptoms.

5. FIRE-FIGHTING MEASURES

- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- In a fire or if heated, a pressure increase will occur and the container may burst or explode. Runoff to sewer may create fire or explosion hazard.
- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides
Dust and fumes
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Do not touch or walk through spilt material. Provide adequate ventilation. Shut off all ignition sources. No flares, smoking or flames in hazard area. Keep unnecessary and unprotected personnel from entering. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, basements or confined areas. Absorb with an inert material and transfer the spilt material and absorbent to an appropriate waste disposal container. Contaminated absorbent material may pose the same hazard as the spilt product. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

7. HANDLING AND STORAGE

Handling : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Do not reuse product container.

Storage : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers.

Store between the following temperatures: 5°C and 30°C

Packaging materials

Recommended : Use original container.
Danish fire class : I-1
Austria - VbF class : A I
 Very dangerous flammable liquid.
Czech Republic - Storage code : I

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values

Ingredient name	Occupational exposure limits
butanone	Ministère du travail (France, 10/2007). Absorbed through skin. Notes: regulatory binding exposure limits, decreet n° 2007-1539 of 26/10/2007, pursuant to article R. 4412-149 of the Labour Act . STEL: 900 mg/m ³ 15 minutes. STEL: 300 ppm 15 minutes. TWA: 600 mg/m ³ 8 hours. TWA: 200 ppm 8 hours.
acetone	Ministère du travail (France, 10/2007). Notes: regulatory binding exposure limits, decreet n° 2007-1539 of 26/10/2007, pursuant to article R. 4412-149 of the Labour Act . TWA: 1210 mg/m ³ 8 hours. TWA: 500 ppm 8 hours. STEL: 2420 mg/m ³ 15 minutes. STEL: 1000 ppm 15 minutes.
1-nitropropane	Ministère du travail (France, 10/2007). Notes: indicative exposure limits as published in Circulars between 1982 and 1996. TWA: 90 mg/m ³ 8 hours. TWA: 25 ppm 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Occupational exposure controls : Use only with adequate ventilation. Use local exhaust ventilation or handle in a ventilated enclosure. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection** : Goggles, face shield or other full-face protection should be worn if there is a risk of direct exposure to aerosols or splashes or when material is handled hot.
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance

- Physical state** : Liquid. [Viscous liquid.]
- Colour** : Clear sparkling liquid.
- Odour** : Ketone.

Important health, safety and environmental information

- Boiling point** : 56°C (132,8°F)
- Flash point** : Closed cup: -17°C (1,4°F)
- Explosion limits** : Lower: 1,2%
Upper: 13%
- Vapour pressure** : <110 kPa (<825 mm Hg) [room temperature]
- Density** : 0,85 to 0,89 g/cm³ [23°C (73,4°F)]
- Solubility** : Easily soluble in the following materials: acetone.
Insoluble in the following materials: cold water and hot water.

10. STABILITY AND REACTIVITY

- Stability** : Stable under recommended storage and handling conditions (see Section 7).
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Keep away from heat and direct sunlight.
- Materials to avoid** : Highly reactive or incompatible with the following materials:
oxidizing materials
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Potential acute health effects

- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Ingestion** : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Eye contact** : Causes serious eye irritation.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
butanone	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-
acetone	LD50 Oral	Rat	5800 mg/kg	-
1-nitropropane	LD50 Oral	Rat	455 mg/kg	-

Date of issue/Date of revision : 06/11/2012.

Page: 5/9

11. TOXICOLOGICAL INFORMATION**Conclusion/Summary** : Not available.**Potential chronic health effects****Chronic toxicity****Conclusion/Summary** : Not available.**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
butanone	Skin - Mild irritant	Rabbit	-	24 hours 14 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-

Conclusion/Summary : Not available.**Sensitiser****Conclusion/Summary** : Not available.**Carcinogenicity****Conclusion/Summary** : Not available.**Mutagenicity****Conclusion/Summary** : Not available.**Teratogenicity****Conclusion/Summary** : Not available.**Reproductive toxicity****Conclusion/Summary** : Not available.

- Chronic effects** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:
irritation
dryness
cracking
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness

11. TOXICOLOGICAL INFORMATION

Target organs : Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, mucous membranes, peripheral nervous system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

12. ECOLOGICAL INFORMATION

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
butanone	-	Acute EC50 >500000 µg/l Marine water	Algae - Diatom - Skeletonema costatum	96 hours
	-	Acute EC50 5091000 to 6440000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Larvae	48 hours
	-	Acute LC50 5600000 µg/l Fresh water	Fish - Western mosquitofish - Gambusia affinis - Adult	96 hours
acetone	-	Acute EC50 20,565 mg/l Marine water	Algae - Green algae - Ulva pertusa	96 hours
	-	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Scud - Gammarus pulex	48 hours
	-	Acute LC50 10000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	-	Acute LC50 5600 ppm Fresh water	Fish - Guppy - Poecilia reticulata	96 hours
	-	Chronic NOEC 4,95 mg/l Marine water	Algae - Green algae - Ulva pertusa	96 hours
	-	Chronic NOEC 0,1 ml/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate	21 days
	-			

Conclusion/Summary : Not available.

Other ecological information**Biodegradability**

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
butanone	0,29	-	low
acetone	-0,24	-	low
1-nitropropane	0,87	-	low

Other adverse effects : No known significant effects or critical hazards.

PBT : Not applicable.

P: Not available. B: Not available. T: Not available.

vPvB : Not applicable.

13. DISPOSAL CONSIDERATIONS

Hazardous waste : Yes.

European waste catalogue (EWC)





Waste code	Waste designation
08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances

14. TRANSPORT INFORMATION**International transport regulations**

Date of issue/Date of revision : 06/11/2012.

Page: 7/9

14. TRANSPORT INFORMATION

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	1133	ADHESIVES, containing flammable liquid	3	III		Hazard identification number 33 Limited quantity LQ7 Special provisions 640H Tunnel code (D/E)
ADN Class	1133	ADHESIVES, containing flammable liquid	3	III		-
IMDG Class	1133	ADHESIVES, containing flammable liquid	3	III		Emergency schedules (EmS) F-E, S-D
IATA Class	1133	ADHESIVES, containing flammable liquid	3	III		Passenger and Cargo Aircraft Quantity limitation: 60 L Cargo Aircraft Only Quantity limitation: 220 L

PG* : Packing group

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorisation****Substances of very high concern**

None of the components are listed. (REACH Article no. 33)

Other EU regulations**Europe inventory** : All components are listed or exempted.

Social Security Code, Articles L 461-1 to L 461-7	:	butanone	RG 84
	:	acetone	RG 84
	:	1-nitropropane	84

Reinforced medical surveillance : Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable**Other regulations****United States****United States inventory (TSCA 8b)** : All components are listed or exempted.**California Prop. 65**

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
No listed substance				

Canada**Canada inventory** : Not determined.**International regulations****Date of issue/Date of revision** : 06/11/2012.

Page: 8/9

15. REGULATORY INFORMATION

- International lists** :
- Australia inventory (AICS)**: At least one component is not listed.
 - China inventory (IECSC)**: At least one component is not listed.
 - Japan inventory**: Not determined.
 - Korea inventory**: Not determined.
 - Malaysia Inventory (EHS Register)**: Not determined.
 - New Zealand Inventory of Chemicals (NZIoC)**: At least one component is not listed.
 - Philippines inventory (PICCS)**: At least one component is not listed.
 - Taiwan inventory (CSNN)**: Not determined.

16. OTHER INFORMATION

Indicates information that has changed from previously issued version.

- Abbreviations and acronyms** :
- ATE = Acute Toxicity Estimate
 - CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 - DNEL = Derived No Effect Level
 - EUH statement = CLP-specific Hazard statement
 - PNEC = Predicted No Effect Concentration
 - RRN = REACH Registration Number
- Full text of abbreviated H statements** :
- H225 Highly flammable liquid and vapour.
 - H226 Flammable liquid and vapour.
 - H302 Harmful if swallowed.
 - H312 Harmful in contact with skin.
 - H319 Causes serious eye irritation.
 - H332 Harmful if inhaled.
 - H336 May cause drowsiness or dizziness.
- Full text of classifications [CLP/GHS]** :
- Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4
 - Acute Tox. 4, H312 ACUTE TOXICITY: SKIN - Category 4
 - Acute Tox. 4, H332 ACUTE TOXICITY: INHALATION - Category 4
 - Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
 - Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2
 - Flam. Liq. 3, H226 FLAMMABLE LIQUIDS - Category 3
 - STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Narcotic effects] - Category 3
- Full text of abbreviated R phrases** :
- R11- Highly flammable.
 - R10- Flammable.
 - R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
 - R36- Irritating to eyes.
 - R66- Repeated exposure may cause skin dryness or cracking.
 - R67- Vapours may cause drowsiness and dizziness.
- Full text of classifications [DSD/DPD]** :
- F - Highly flammable
 - Xn - Harmful
 - Xi - Irritant
- History**
- Date of printing** : 06/11/2012.
- Date of issue/Date of revision** : 06/11/2012.
- Date of previous issue** : 06/07/2012.
- Version** : 2.01
- Prepared by** : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.